



```

#include<Servo.h>

Servo s;

Int t=2;

Int e=3;

Int l=11;

Void setup()

{

pinMode(t,OUTPUT);

pinMode(e,INPUT);

pinMode(l,OUTPUT);

pinMode(13,OUTPUT);

pinMode(4,INPUT);

s.attach(5);

Serial.begin(9600);

}

Void loop()

{

//ultrasonic sensor used to indicatate BULB glowing and Door open(servo motor)

digitalWrite(t,1);

digitalWrite(t,0);

delayMicroseconds(10);

digitalWrite(t,0);

float dur=pulseIn(e,1);

float dis=(dur*0.0343)/2;

Serial.print("distance:");

Serial.println(dis);

If(dis>150){

digitalWrite(l,0);

s.write(180);

```

```
}

Else{
digitalWrite(l,1);
s.write(0);
}

//Temprature sensor

Double a= analogRead(A0);

Double t= (((a/1024)*5)-0.5)*100;
Serial.print("temprature value:");
Serial.println(t);

Delay(1000);

If(t>100)
digitalWrite(13,1);
else
digitalWrite(13,0);
delay(1000);

//PIR sensor

digitalWrite(13,0);

int a1=digitalRead(4);
Serial.println(a);

If(a1==1){

Serial.println("motion detected:");
digitalWrite(13,1);
}

Delay(1000);

}
```